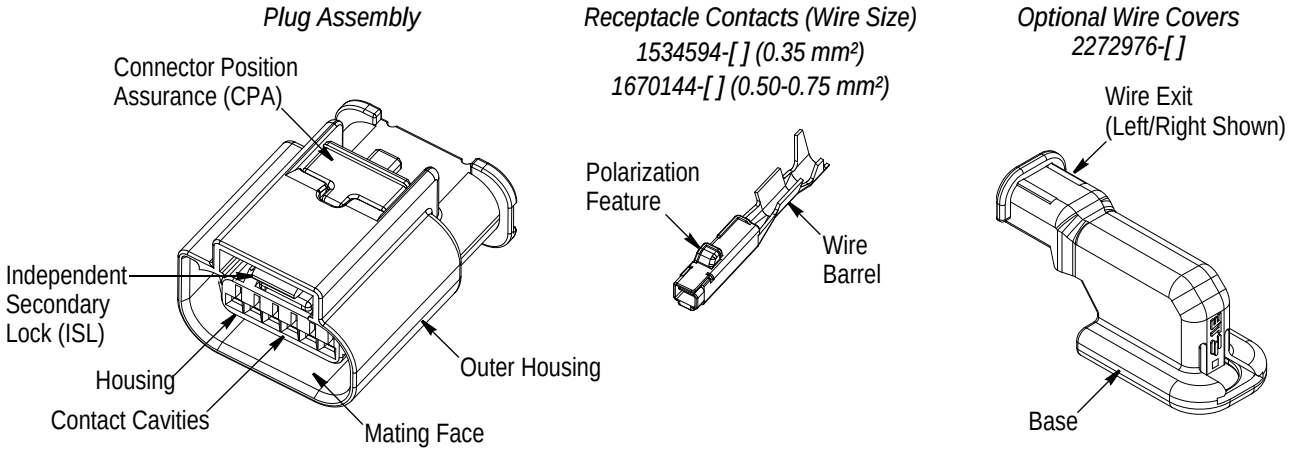


Figure 1

1. INTRODUCTION

1.2-mm MCON 6-position sealed plug assemblies 2272975-[ ] accept the 1.2-mm MCON receptacle contacts given in Figure 1. For applications subjected to severe vibration or high-pressure water spray, the optional wire cover, shown in Figure 1, is recommended. This instruction sheet provides assembly (contact insertion, optional wire cover installation, and plug assembly mating) and disassembly (plug assembly unmating, optional wire cover removal, and contact extraction) procedures for the plug assembly.

NOTE
Dimensions in this instruction sheet are in metric units. Figures are not drawn to scale.

Reasons for reissue of this instruction sheet are provided in Section 6, REVISION SUMMARY.

2. DESCRIPTION (See Figure 1)

Each plug assembly consists of a housing with circuit cavities, outer housing, mat seal for the contacts, peripheral seal, ISL, and CPA. The plug assembly is available with molded-in seal plugs that provides a specific pattern of open and closed circuit cavities.

Each circuit cavity is polarized to prevent the contact from being inserted upside-down. After all contacts are inserted, the ISL is used to detect that all contacts are fully seated and to provide a secondary contact retention. If a contact is not fully seated or improperly orientated in the circuit cavity, the ISL will not close properly.

The peripheral seal prevents moisture from entering the plug assembly interface. The CPA lock is used to provide a visual indication that the plug assembly is fully mated. If the plug assembly is not fully mated, the CPA lock will not engage.

The optional wire cover is available in straight, left/right (shown in Figure 1), and 90-degree angle wire exits.

3. ASSEMBLY PROCEDURE

3.1. Contact Insertion

1. Crimp the contacts using the tooling and inspection requirements given in application specification 114-18464. The mat seal of these plug assemblies will only accept wire with an outside diameter from 1.2 to 1.9 mm.

CAUTION
Ensure that the wire strands do not extend above the wire barrel crimp; otherwise, the wire strands could cause damage to the mat seal when the contact is inserted into the contact cavity.

2. Make sure that the connector ISL is in the open (as shipped) position as shown in Figure 2, Detail A. If it is only partially open or in the closed position as shown in Figure 2, Detail B. Refer to Step 1 of Paragraph 4.3.

3. Insert each terminated contact into the plug assembly as follows:

a. Grasp the wire of the contact, and align the contact with the selected circuit cavity so that the contact polarizing feature faces in the top of the circuit cavity (notch indicates top). See Figure 3, Detail A.

b. Insert the contact straight into the circuit cavity until it bottoms. If there is significant resistance during insertion, remove the contact, and verify orientation. There should be an audible or tactile “click” when the contact is fully seated. See Figure 3, Detail B.

c. Gently pull the wire to ensure that the contact is locked in place. See Figure 3, Detail B.

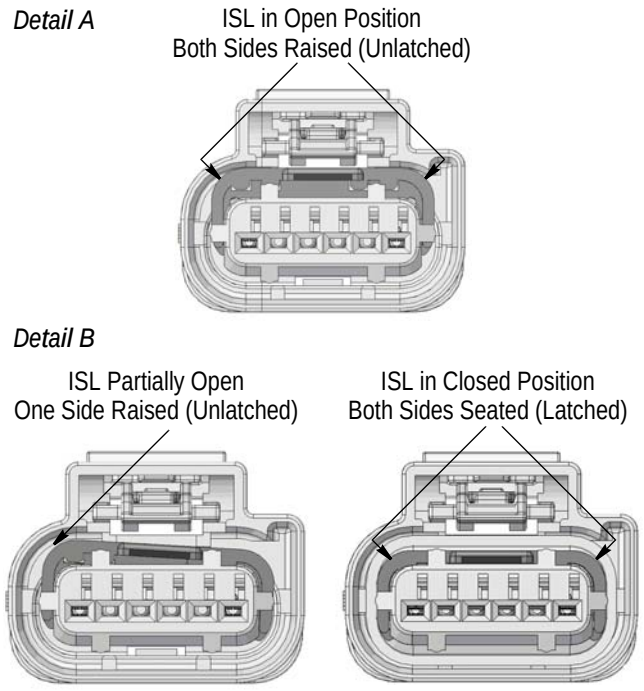


Figure 2

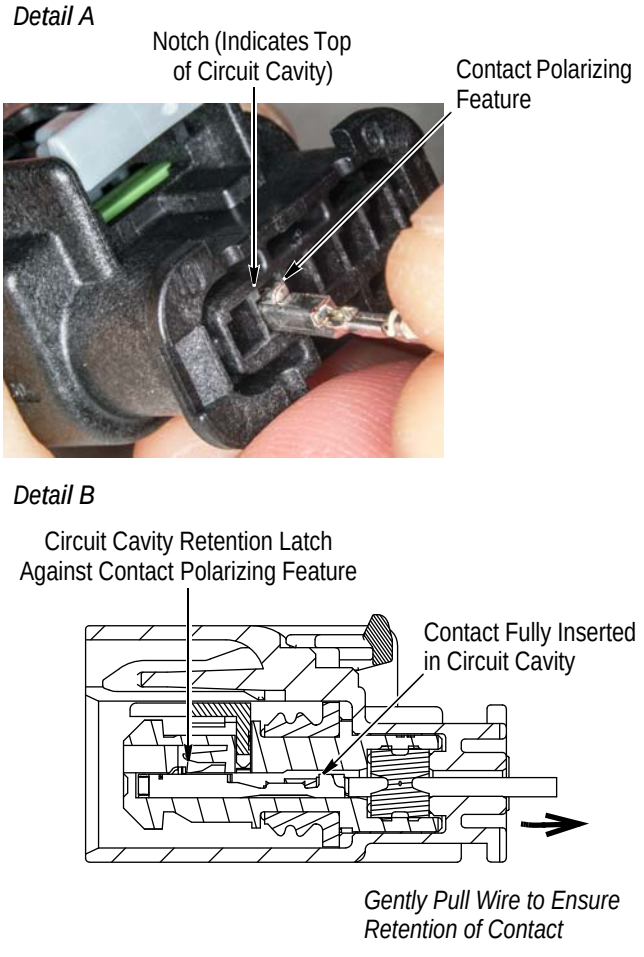


Figure 3

4. After all contacts have been inserted, orient the plug assembly so that the CPA is facing up, then place the tip of a small screwdriver (ensure that there are no sharp edges) over the top of the ISL. See Figure 4.

5. Holding the screwdriver in a straight position, press it straight down to move the ISL to the closed position. Do not rotate the screwdriver against the CPA.*Take care* not to damage the peripheral seal. Ensure that both sides of the ISL are seated. Refer to Figure 2 for visual inspection or use a gage designed to simulate the mating device interface to check that the ISL is in the closed position.

NOTE
The gage can be built into fixtures used in the harness building process. For additional information, contact PRODUCT INFORMATION at the number at the bottom of page 1.

If the ISL does not move to the closed position or is partially open, ensure that all contacts are fully inserted; then try again to move the ISL to the closed position.

CAUTION
To prevent damage to the ISL, do not force the ISL to the closed position. The ISL is designed to close only if all contacts are properly oriented and fully seated.

Figure 4

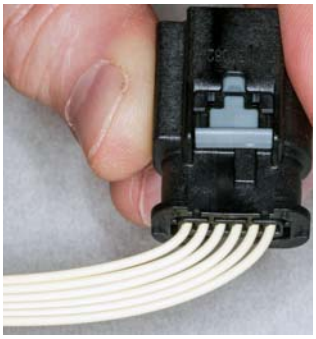
3.2. Optional Wire Cover Installation

1. Hold the plug assembly, grasp the wire bundle, and form (bend) the wire bundle in the desired direction. See Figure 5, Detail A.

2. Align the open end of the base of the wire cover with the lip at the wire end of the plug assembly, making sure that the wire exit will accommodate the desired direction of the wire bundle. See Figure 5, Detail B.

3. Slide the wire cover onto the outer housing and over the wire bundle, making sure that all wires are completely captured within the wire cover, until it snaps into place. See Figure 5, Detail C.

Detail A



Detail B

Detail C

Figure 5

4. Using tape or cable ties, attach the wire bundle to the wire cover.

3.3. Mating

1. Align the mating face of the plug assembly with the mating device so that the key is properly oriented with the device key and the mating latch aligns with the shark fin latch of the mating device. Then push the plug assembly onto the mating device. See Figure 6, Detail A. There will be an audible “click”.

2. Push the CPA until there is an audible and tactile “click”; locking the plug assembly and mating device together. See Figure 6, Detail B. The CPA should be easy to engage. The CPA will not engage if the plug assembly and mating device are not fully mated.

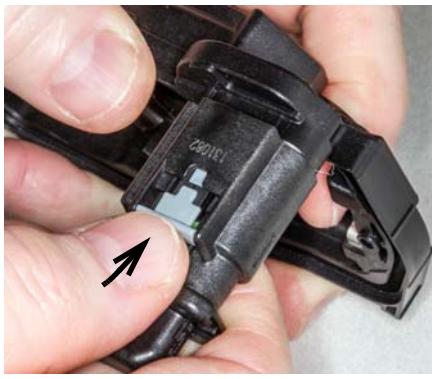
CAUTION
To prevent damage to the CPA or plug assembly, do not force the CPA to engage. The CPA is designed to engage only if the plug assembly and mating device are fully mated.

Detail A

Push Plug Assembly onto Mating Device

Detail B

Push Plug Assembly CPA to Engage



CPA Disengaged

CPA Engaged

Figure 6

4. DISASSEMBLY PROCEDURE

4.1. Unmating

1. Pull the CPA to unlock the plug assembly and mating device.

2. Depress the plug assembly mating latch, then pull the plug assembly away from the mating device.

4.2. Optional Wire Cover Removal

1. Remove any tape or cable ties from the wire bundle and wire cover.

2. Grasp the closed end of the wire cover, and forcefully slide it straight away from the plug assembly. See Figure 7.

Figure 7

4.3. Contact Removal

1. Move the ISL to the open position as follows:

   a. Insert the tip of a 3- or 4-mm flat blade screwdriver between the housing and ISL. Refer to Figure 8. One side of the ISL will typically unlatch due to the insertion of the screwdriver.

   b. Rotate the screwdriver to unlatch the other side of the ISL. The ISL is now in the open position and will unlock the contacts from the plug assembly. See Figure 8.

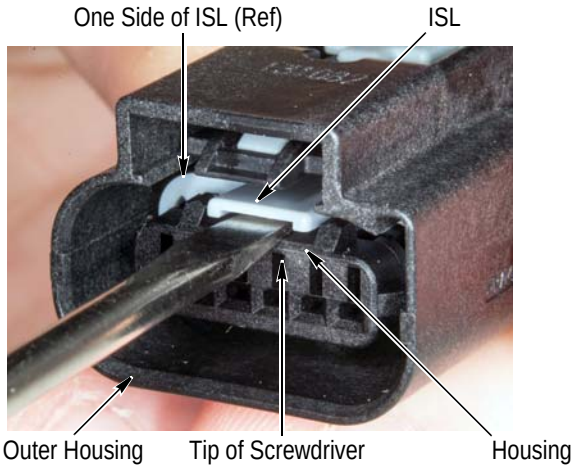


Figure 8

2. Push the wire of the contact to be removed so that the contact moves toward the mating face of the plug assembly. See Figure 9, Detail A.

3. Holding the wire in place, from the mating face of the plug assembly, insert the tip of General Motors Kent-Moore terminal release tool J-38125-215A (or equivalent, see note) into the circuit cavity release window of the contact to be removed, then gently rotate the tool toward the contact so that the circuit cavity locking latch moves away from the contact polarizing feature (this will release the contact). See Figure 9, Detail B.

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CAUTION
Special care should be taken to prevent damage to the mat seal.

NOTE
A tool having a spring steel tip approximately 0.82-mm thick with a 0.95-mm high beam and 60-degree angled wedge can be used.

4. Holding the tool in place, pull the wire, until the contact is out of the plug assembly. See Figure 9, Detail C.

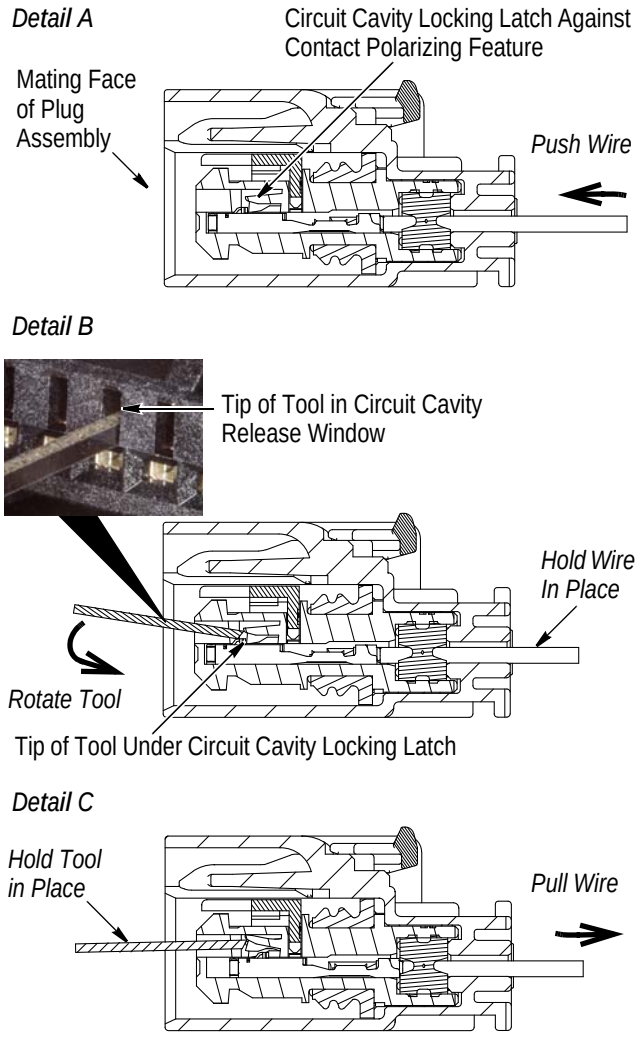

Figure 9

5. REPLACEMENT AND REPAIR

These products are not repairable. Do not use any defective or damaged product. Do not re-use a terminated contact by removing the wire.

6. REVISION SUMMARY

Revisions to this instruction sheet include:

- Changed connector and wire dress part numbers